DOCUMENT RESUME

ED 463 802 JC 020 317

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TITLE	Community Colleges: A Viable Solution for Latin America?
INSTITUTION	Inter-American Development Bank, Washington, DC.
PUB DATE	2000-00-00
NOTE	23p.; Paper presented at the seminar on New Options for Higher Education in Latin America: Lessons from the Community Colleges Experience. (Cambridge, MA, September 4-8, 2000).
PUB TYPE	Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Academic Achievement; *Access to Education; Adult Education; Associate Degrees; Basic Skills; College Faculty; College Instruction; *Community Colleges; Distance Education; Dual Enrollment; *Economic Development; *Educational Improvement; *Educational Innovation; Foreign Countries; *Private Financial Support; Private Sector; Social Mobility; Two Year Colleges
IDENTIFIERS	*Latin America

ABSTRACT

This paper analyzes the United States community college as a model for adaptation in Latin America. The author argues that there is a growing frustration with the lack of responsiveness of universities to the development needs of societies in Latin America. Higher education continues to be accessible only to the privileged segments of society there. In addition, there is limited availability of technical education in these universities. Latin America's extant postsecondary technical training institutions' links with industry and business for curriculum development and technical assistance provision are weak or absent. In addition, there is little flexibility in program design and delivery, general education is not offered alongside technical training, and there is no possibility of transferring credits earned to a university program. The public sector in Latin America, according to the paper, lacks the flexibility it needs to replicate the United States community college. This author suggests that in Latin America, the private sector should take the responsibility of investing in the development of a form of community college. Though it would seem natural for the public sector to take charge of community college development, in the present climate it would need subsidies from the private sector as well. (NB)

COMMUNITY COLLEGES: A VIABLE SOLUTION FOR LATIN AMERICA?

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Presented at the Seminar on
New Options for Higher Education
In Latin America:
Lessons from the Community Colleges Experience
(Sponsored by the Inter-American Development Bank
and the Harvard Graduate School of Education)
Septiembre 4-8, 2000

Education Unit

Sustainable Development Departament

Inter-American Development Bank

Community Colleges:
A Viable Solution for Latin America?

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Community colleges are educational institutions that provide postsecondary training through shorter programs than are offered at four-year universities. More formally, a community college is an institution of higher education in which the associate degree is the highest degree conferred.[2] This paper describes the U.S. experience with community colleges and then discusses them from the standpoint of Latin America, which is preparing to institute similar types of education or, as in the case of Argentina, Chile, and Venezuela, already offer it. [3]

The trend towards such programs is already a global one. In Europe[4] and the United States,[5] community colleges account for at least one half of all graduates of postsecondary education. Should Latin America be any different? Are there any unique local circumstances that would keep us from following along the path being pursued everywhere else?

Probably not. The risk we run, however, is that of mixing and matching models that do not reflect our specific situation and needs. The better strategy would be to examine best experiences and learn from the lessons they hold out to us.

In this regard, a recent article by Daniel Levy on isomorphism in education is especially enlightening.[6] The author observes that there is a tendency among institutions of higher learning to imitate each other (both in the same country and elsewhere), either because they are required to do so by law, because the seek vicariously the legitimacy enjoyed by older institutions, or because they lack imagination and initiative. Although the article's comments are not directed

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[2] In the US the associate degree is granted upon completion of a two-year program. Canadian community colleges offer also three-year certificate programs, an option not available in US community colleges.

[3] Curiously, these schools are referred to simply as *colegios* (colleges) in some Latin American countries. While on the surface this might appear an innocent enough simplification, it could lead to misunderstanding on two counts. First, to the extent that *college* in the United States refers to traditional four-year schools rather than the two-year curriculum that is typical of community colleges. Second, insofar as *colegio* is elsewhere in Latin America the name of private schools offering both primary and secondary education.

[4] Jean-Pierre Jallade, *Lènseignement supérieur en Europe: Vers une évaluation comparée des premiers cycles*, Notes et études documentaires, N° 4929, (Paris, 1991).

[5] The Carnegie Foundation for the Advancement of Teaching, *A Classification of Institutions of Higher Learning* (Princeton, 1994).

[6] Daniel Levy, "When private education does not bring organizational diversity: case material from Argentina, China and Hungary", in *Private Prometheus: Private higher education and development in the 21st Century*, P. Altbach, editor (Boston: Center for International Higher Education, Boston College, 1999).

specifically at Latin America, they apply perfectly to our situation. Schools in the less affluent suburbs imitate center-city schools; and private schools slavishly and mindlessly copy public ones, with few exceptions. They might imitate because the government has instructed them to, but at the same time they do not protest nor do they seek new formulas that might be better suited to their structure and means or to the labor market. When complaints *are* lodged, they are rarely accompanied by proposals for alternatives and, even then, there is no commitment to fight for them.

So, if the winds of change are indeed blowing in the direction of shorter curricula, we would do well to devise our own system correctly from the beginning. Otherwise, we run the risk of copying someone else's mistakes.

Clark Kerr— one of the mavens of U.S. higher education— views community colleges as the century's most innovative experience in the educational field. It would therefore behoove us to draw the right lessons from this rich and valuable experience. In the Latin American context, however, it probably won't be possible to copy all the details of the model. The private sector will not be able to replicate the system outright, given the likely absence of public subsidies for many of the activities involved. At the same time, it appears it won't be possible for the public sector to do so either, given the lack of flexibility and entrepreneurial spirit among most public institutions stifled by ill-advised, Byzantine legislation. Still, we have much to learn from community colleges even though we would not want to imitate many of their features.

In order to fully understand the community college system, we need to bear in mind that, even in the United States, they represent a category of institutions that has been the subject of very limited study.[7] The elite universities have focused their research on elite universities— not on community colleges, which remain almost invisible. In the heated debate on four-year programs, community colleges are neither criticized nor praised. The magazine *U.S. News and World Report*, which ranks institutions of higher education, doesn't even include community colleges in its rankings. This situation is reflected in students' views as well: "I couldn't go to a 'real' college, so I went to NOVA [a community college]," were the words of a student from Northern Virginia Community College.[8] Community colleges are in fact snubbed by the elite universities and suffer from a chronic status problem. The left views them as performing a *cooling out* function, as if they were some sort of consolation prize or bone thrown to the poor[9]. They are accused of being envious of four-year universities and of trying to imitate them, which might be true in some cases; there is no denying that some of them suffer from academic drift, or a desire to copy and act like universities. While this may all be true, it does not distort the general picture, bearing in mind that there are also trends in the opposite direction, i.e., community colleges that deliver much appreciated practical education.

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[7] Thomas Kane and Cecilia Elena Rouse, "The Community College: Educating Students at the Margin between College and Work," *Journal of Economic Perspectives*, col. 13, no. 1, Winter 1999, pp. 63-84. Many of the statistics and other data used herein were drawn from this article.

[8] Jim Naughton, "Super NOVA" (*Washington Post Magazine*, November 14, 1999).

[9] See Michael W. Apple, "Ideology, Reproduction, and Educational Reform," *Comparative Education Review* 22 (1978): 367-87. Also, Jerome Karabel, "Community Colleges and Social Stratification," *Harvard Educational Review* 42 (1972): 521-62.

In Latin America, the picture is even bleaker. Shorter programs are viewed with outright disdain, when they are not simply ignored by legislation focusing solely in university degrees, as the case is in some Central American countries. In Chile, Latin America's most advanced country in terms of structure of higher education, the Presidents or Rectors of these programs are not allowed to sit on the board of Presidents, thus creating a situation in which higher education is discussed and decided upon without them even being present. A similar situation exists in Venezuela: they do not sit on the board of Presidents and are not invited to meetings with the Minister at which higher education is discussed.

I. Origins

At the beginning of the twentieth century the Joliet Township school board authorized the local high school to offer the first two years of postsecondary education. The example of Joliet was soon followed by the state of California, which first authorized high schools to offer the first two years of college, and then in 1917 recognized the right of school districts to establish separate public "junior" colleges. Several other states followed suit during the twenties, and thus the junior college was born— later called "community" college to avoid the negative connotations of "junior" and to stress its community-based mission. [10] One of the reasons for the emergence of junior colleges was the effort to facilitate access to higher learning without overburdening the four-year programs. This, of course, was possible in the U.S. system, where most four-year college graduates are not prepared for the workplace. The first two years of postsecondary education are virtually identical for all four-year programs, regardless of the specialty (or *major*) selected for the last two years. It should be noted that *major* refers solely to an area of concentration and not to a true preparation for the labor market, which is actually what U.S. master's programs do.

For the most part, junior colleges were small schools with a viable scale of operations, precisely because the first two years of almost all majors were the same. Small cities, for instance, might have a junior college but no four-year program because they lacked the infrastructure or the number of students to justify offering the various disciplines required for the second two years.

With the return of soldiers and the creation of the G.I. bill[11] after the Second World War, demand for such schools mushroomed since most of the demobilized soldiers did not display the typical profile of college students. Millions of vouchers were distributed, and enrollment in these schools doubled between 1944 and 1947.

In the period since then, enrollment at community colleges has been increasing at a much faster rate than at four-year schools. At the same time, community colleges have undergone a fundamental change in their structure and functions; this will be discussed below. Today, the US 1,132 community colleges have a combined enrollment of 5.4 million (10.4 million if not-for-credit students are included), representing 44 percent of all undergraduates, 38 percent of all

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[10] Vaughan, George, *The Community College Story*, the Community College Press, Washington, DC, Second Edition, 2000, p. 23.

[11] A system of public subsidies whereby the federal government made monthly payments to demobilized soldiers who wanted to pursue postsecondary studies.

postsecondary enrollment and 45 percent of state-affiliated education. With their shorter programs, these schools account for one half of all postsecondary diplomas.

Worth noting is the fact that 95 percent of postsecondary enrollments of short duration are in public institutions.[12] Only 12 percent of community colleges in the US are private, which in large part is due to the various roles played by these colleges, which rely heavily on government funding.

The profile of students and teachers at community colleges is quite different from the four-year schools. There is a high percentage of part-time students (64 percent) and, more importantly, 84 percent of the students have jobs, the average age of students is 29, and 33 percent are 30 years of age or older. Over one half the students attend courses for periods of one year or less (there are many degrees that can be earned in just one year).

The percentage of teachers working part-time is also high (two thirds). Many courses are offered in the evening or on weekends. Great effort is made to offer courses close to where students live or work, by means of branch campuses. Strayer University, which offers mainly one- and two-year programs, has 13 campuses in the Washington, D.C., area. Lastly, community colleges offer more distance-learning courses than do four-year programs, which shows that they cater to older students who are already part of the labor market.

The inner workings of community colleges will be discussed further on. Here, it is enough to appreciate that the system is very extensive (over 1,000 institutions) and the target clientele is definitely of more modest means that in the "normal" educational system, to the extent that— for these students— education is an activity that is concurrent with working. Students are older and study part-time. Teachers are less academically oriented and also work part-time. Interesting, too, is the fact that some of the less prestigious universities now offer short programs conferring associate degrees; for all intents and purposes, they are running the equivalent of a community college within their walls.

Text from an advertisement in The Washington Post, *November 14, 1999:*

Feeling trapped by your current job?

Well, shift gears – enroll in our Information Technology or Computer Science Programs.

Pursue your associate's, bachelor's or master's degree in information systems or computer science. Get certified in Oracle, Unix, C, C++, Year 2000 Cobol, Visual Basic, web development and more. [...]

Southeastern's experienced faculty of industry professionals embrace a hands-on approach to teaching.

Southeastern is a private, accredited university that is affordable and conveniently located close to metro stops. Day, evening and weekend classes are available. Call today to register.

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[12] Even so, there are an extraordinary number of similar courses that are offered by private educational institutions and companies, although they do not offer equivalent certificates.

II. Financing

Unlike the situation with conventional public higher education, community colleges have a differentiated financing model. With some variations, the classic formula is 40 percent funding from the state, 10 percent federal funds, 20 percent local funds, and 30 percent from students' tuition and contract services.[13]

Payment of tuition is a universal principle in U.S. higher education (in both the public and private sectors), so in this respect, community colleges do not add anything new. State-government support also is a standard feature. The component that is most different is the local government's participation, and this is where the *community* comes from in *community colleges*.

Given the strong role of community participation in the preparation of local government budgets, this is one of the sources of legitimacy and responsiveness of these colleges to local needs. Community colleges are answerable to the community. And the community is a tough customer, one that demands results. At a dinner attended by one of the authors offered by Amarillo Community College (Texas, U.S.A.) in honor of local community leaders, the school administrators were visibly worried about making a good impression. At the dinner, the school's results and plans would be presented and there was concern that the community would be sufficiently impressed as to approve the school's new budget. Indeed, local government officials have to be convinced that the college is doing a good job.

The overall cost of education at a community college is roughly US$4,000 per student per year, which is equivalent to one half the average annual tuition at public four-year institutions. Community-college students pay on average US$1,500 per year. As with four-year programs, there is an abundant supply of financial aid visibly in the form of student loans, provided mainly by the federal government. There are also ample opportunities for scholarships and tuition discounts. The system is admittedly geared towards a lower-income clientele, and its accessibility in terms of price is one of its most appealing features.

One factor that helps keep course costs down is the use of part-time teaching staff. Many teachers have other jobs as well, often better paid and more prestigious.

Community colleges take a clear and deliberate position not to promote research systematically. In the words of the president of Northern Virginia Community College, "I think there is a place for researchers and thinkers ... and a place for the worker bees and the folks who want to get down and dirty with it." Only 4 percent of community-college teachers are engaged in research. Community-college instructors are also less qualified than their counterparts at four-year institutions: most hold a master's degree but not a doctorate. In fact, community colleges as a rule openly avoid hiring Ph.D.'s. Even when such candidates are available (which, actually, is often the case), they are felt to lack the experience and motivation required for a course load as heavy as 5 courses per term.[14] According to some administrators, after spending so much time

[13] In Canada the typical funding breakdown is 60 percent provincial sources, 20 percent local support and 20 percent tuition and services.

[14] Union rules limit teaching in Canada to a maximum of 15 hours out of a total of 37 per week.

preparing a dissertation, Ph.D.'s would become frustrated by the student profile and the unacademic atmosphere.

The eschewal of Ph.D.'s is not universal, however; many community colleges in fact tap them for manning their faculties of arts and sciences, where students who want to transfer to four year colleges enroll for a liberal arts education.

The "academics" of a community college are therefore catering to the transfer program those who want to transfer to a four year institution. Remedial education is done by adult educators, technical programs are taught by professionals in the field who, in addition, may have a master's degree in education administration or similar, and the vocational trades are the province of practitioners who have undergone practical instructional training.

III. Economic Benefits for Students

Sufficiently reliable data are available that allow for a comparison to be drawn between the performance of community-college graduates and other students who either have not completed postsecondary education or have graduated from four-year programs.

Without a doubt, more education makes a difference. Students who have completed part of the coursework but did not finish their degree program earn 10 percent more on average than workers with only a high-school education.

Each additional year of coursework completed brings an additional 5 percent-10 percent in wages. Compared with four-year programs, the results are almost proportionate, to the extent that they are equivalent to the sum of the increases accruing from each year of study at a community college.

Courses offered at community colleges have also correlated with a 15 percent increase in performance by employed adults. More importantly, the initial gains do not dissipate over time.

In sum, the economic results are very respectable and begin to be felt after only a few months of course study. It is precisely such rapid returns that make these courses attractive to students who are not able to devote much time and money to higher education.

IV. Their Role in Social Mobility

Community colleges may be a consolation prize but they are a powerful vehicle for social mobility, serving a clientele that is unable to attend four-year programs. Typically they attract students who are not able to support themselves over a four-year period, especially for a degree that does not actually prepare them for the workplace. They also respond to a clientele that is not interested in or is uncomfortable with theoretical, abstract studies, which are often a component of the longer programs. Community colleges furthermore have a higher percentage of students who are the first ones in their family to attend an institution of higher learning.

Community colleges very deliberately tailor their mission and modus operandi to this clientele. Studies have shown that they offer more personalized attention and that their teachers are more dedicated to their students. Survey courses are avoided and the number of students per class is generally kept low. They understand that there are serious problems of motivation among a clientele that has an uncertain and ambivalent attitude towards education; after all, these are emerging groups in the area of higher education.

Moreover, these students are academically less gifted and only graduated from high school because most U.S. states do not have minimum performance requirements for high school graduation. This is a remarkable and not very complimentary feature of the U.S. secondary education system. Students who have problems in a given subject area are channeled towards other, easier subjects that are more practical and less demanding, where it is almost impossible for them to fail.

The statistics speak for themselves: 41 percent of community-college students have to take remedial courses, some of which are actually at the level of functional literacy and basic arithmetic. Many students have not achieved an eighth-grade reading level and thus have to take additional remedial courses; English grammar, for instance, is taught at the seventh-grade level. [15] Be that as it may, this is the clientele served by community colleges. There is a clear policy of open enrollment for all: all that is required is a high school diploma, and for some programs not even that is necessary. In fact, high school equivalency programs for school drop-outs constitute a main line of activity for many community colleges.

The strong point of these schools is that they work realistically with their clientele, rather than design their courses on the basis of some dreamed standard. Given the current state of the U.S. secondary education system, the role of community colleges is to offer education to all comers in an attempt to make up for that system's shortcomings. And therein lies their worth; it is also what makes this experience instructive for Latin America, which shares these low performance levels in a significant share of its secondary education students.

Accordingly, there is considerably more concern with teaching methods and innovations to properly serve this clientele. As Clark Kerr pointed out, these are virtually the only institutions of higher learning that produce solid advances in teaching methods, e.g., in the relevance of subjects taught, use of computers, applied academics,[16] etc.). A further illustration of this point is the fact that 58 percent of community colleges offer distance learning, which is a higher proportion than among four-year programs.

There is, however, a price attached to this. Students who enter a four-year program are more likely to complete their program than are students having the same profile who transfer from a community college after their second year. Community colleges have a different ethos— students are less driven towards completing a program— and this gradually erodes their motivation to continue. On the other hand, there is evidence suggesting that students that do obtain their associate's degree in a community college and then transfer to a four-year college (some 35

[15] Dante Chinni, "City College," *Washington Post Magazine*, ibid.

[16] See Dan Hull, *Abre tu mente e abrirás las puertas del futuro* (Waco, Texas: Cord, 1999).

percent of all community college graduates) do better in their junior year than their peers who initiated their studies in the four-year college.

Community colleges are institutions of contrast. If, on one hand, they admit high school drop-outs looking for a second chance, and high school graduates unable to make the cut for a university, on the other hand they also recruit fast-track high school students wishing to enroll while they are still in their junior or senior year of school, in what is called "dual enrollment." Certainly the customers using this option, as well as the growing numbers of graduates of four year programs and people with graduate degrees who seek applied technological training not available to them in traditional academic programs are not the "academically challenged" clientele commonly associated with community colleges.

Many researchers and members of universities that are more academically oriented have leveled serious attacks against community colleges, accusing them of undermining students' ambitions and funneling them directly into the job market (i.e., *cooling out* poor students by channeling them away from conventional forms of higher education). Many of these same people forget, however, that most of these students wouldnt even be in higher education if it werent for community colleges. So, while community colleges may indeed stunt the academic careers of a few students who might otherwise have completed a full program at a four-year institution, the truth is that most community college students would not be studying at all if it werent for the practical and immediate nature of the education offered by community colleges.

V. The Changing Functions of Community Colleges

The discussion thus far has focused on describing community colleges from an outside vantage point, without delving into their course offerings. Actually, the appeal of community colleges lies in their evolution and new roles that they have taken on over time. It can safely be said that their original function of offering the first two years of postsecondary education is but one of the benefits they offer nowadays, especially from a Latin American viewpoint.

1. In the Beginning: Junior Colleges

As indicated above, the original purpose of these schools was to allow students from smaller cities (or those with less preparation) to complete the first two years of postsecondary education in their home town. Since course content at this level was basically the same for all majors, there was sufficient economic justification to operate with the smaller enrollments than would be required for the multiplicity of careers of a four year college. Gradually, though, the notion and practice of the "comprehensive college" has emerged, a college in which the transfer function coexists, often not as the primary function, with technical and vocational training, remedial education, contract training for firms, continuing education, and recreational learning. While the associate degree in liberal or general studies and humanities still constitutes by far the most awarded associate degree with 167,000 degrees conferred in 1996-97— against 77,000 in health professions; 72,000 in business management and administration services; 20,000 in engineering-

related technologies and 17,000 in protective services[17]— community colleges train today 2/3 of all registered nurses in the US.

Community colleges, it is true, offer a diluted level of academic preparation; they cannot compare with the rigor and demands of four-year programs. But for many students, a more demanding program is beyond their time availability and academic capabilities. The more personalized attention and interest that community colleges can offer such students should not be underestimated. Many go to these colleges precisely because the setting is unpretentious and gauged to their needs.

But this is not what is most impressive about community colleges. Kerr would not consider them the greatest innovation in higher education if all they did was offer two years of watered-down, general studies to economically underprivileged students. In fact, academically speaking, they offer nothing special at all. For someone who wouldnt be able to study in some other kind of school, it could be a major step forward. Overall, however, it is nothing extraordinary.

2. Their Leveling Function: A Second Chance

Thanks to a secondary education system that has very lax minimum standards, many students simply are not prepared to enter normal higher education. Either they dont even try to pursue such an education, or they register and immediately run up against obstacles. In areas with high percentages of immigrants, community colleges are a portal of entry for people lacking in English language skills. Along the Mexican border, for instance, some community colleges have student bodies that are over 50 percent Spanish-speaking; the average for the country overall is 15 percent foreign or immigrant students.

Community colleges also serve people who have already been working in their careers or have a graduate degree, but want to make a change. The community-college format is the one best suited to allowing them to continue working while preparing for a new career. Some, of course, are looking for very specific training, e.g., in such areas as computers and information technology.

The typical community-college students, however, are high-school graduates whose previous training is unacceptably weak. Before embarking on a conventional course of higher learning, they need to compensate for these shortcomings through remedial studies to bring them up to the required level. It is indeed regrettable that the U.S. secondary education system does not have standardized, mandatory skills levels for graduation from high school. While it is true that the best students from the best schools in the United States are the best in the world, it is also true that the worst students are among the worst in the entire developed world. No other wealthy country graduates so many nearly illiterate people as the United States does, and therein lies the interest of community colleges as a model for Latin America.

In other words, one of the key functions of community colleges is to offer remedial programs and, indeed, they specialize in this type of program. Students who encounter problems at four-

[17] American Association of Community Colleges, *Pocket Profile of Community Colleges: Trends and Statistics*, AACC, Washington, DC, third edition, n/d, p. 8.

year institutions sometimes transfer temporarily to community colleges precisely for the remedial learning that they offer. There, they find what they need and in a more enabling environment.

3. The Vast System of Vocational Education

Nowadays, the core function of community colleges is vocational education. It is the sphere in which they have grown the most in recent years and it has given them their strongest identity. At the beginning of the twentieth century, the United States took a drastic step, opting for the so-called *comprehensive high schools*. The voices of those who wanted to see vocational schools established alongside academically-oriented schools— which continues to be the status quo in Europe— fell on deaf ears. U.S. high schools offer various options under a single roof, depending on the skills and interests of the students. Students who are more academically inclined take more science and math courses and usually choose more difficult courses. For less ambitious students, less demanding courses are available. More significant, however, was the country's decision to entrust vocational training to its high schools, in effect having a single school look after all the various aspects of education and training that are offered at this level.

Such a system is not without its merits, especially with regard to vocational education. For a country in which manual labor has always enjoyed high social esteem, the commingling of manual and intellectual activities is less problematic than in most other societies, where differences of class and social category are much more distinct (including in Europe). Under the United States' sphere of influence, this model was exported— but turned out to be a major disappointment almost without exception, despite its relative success in its country of origin. (The World Bank tried to promote the model in Latin America, but was unsuccessful.)

The success at home was not unqualified, though. The fact that some academic subjects enjoyed greater status, coupled with the tendency to push students who did poorly in the sciences and humanities towards vocational training, undermined this role of the high schools. With the increasing complexity and theoretical development of many technical professions, the amateur-level training provided at high schools has lost its relevance and ability to respond to the economy's needs.

Gradually, community colleges have been moving into this niche. Vocational training through two-year programs at the postsecondary level is steadily taking over from the vocational courses at secondary schools. Vocational training has migrated to a higher level, and community colleges have been at the receiving end of that migration. This is the valuable niche that community colleges occupy today, and this is where Latin America needs to look for lessons of interest to it.

"What in the world could we be doing that is more important than getting people ready to make a living? It's got to be greater than studying culture and the arts. It has got to be linked to how the person makes a living and feeds their family."[18]

Also noteworthy is the fact that most major pedagogical innovations are hatched at community colleges. Granted, not all of them are foci of innovation or creative initiative, but if there is one

[18] G. Baker in Jim Naughton, op.cit.

place where innovation does exist, it is the community college. Conventional four-year programs tend to repeat conventional teaching methodologies. And the higher the status of the institution, the more conventional the methodology; there's no use in looking for pedagogical innovation at elite universities. Harvard and Yale, for instance, work almost exclusively on the basis of blackboard and chalk. The Media Center at MIT is the world's most advanced laboratory in terms of state-of-the-art teaching technologies. In the classroom next door, however, the professor holds forth on the latest theories by consulting notes scribbled on pieces of paper and copying words or formulas onto the blackboard.

Community colleges, on the other hand, are a paradise of new teaching technologies— and of innovations as well. Some, in fact, do not have a single traditional classroom. On the first day of classes, students are assigned to a workstation equipped with a computer, a videocassette player, and a course outline showing the order in which their classwork is to be done. The teacher walks around among the students and discusses individual problems with each one. Those who advance more quickly finish the course sooner.

Today, some 400,000 students are taking courses via distance learning, making ever greater use of the Internet. Business incubators are being set up, schools are organizing practicums at local companies, there are even businesses that are run by schools. The schools track the market closely, following developments and adjusting their course offerings accordingly. Decisions on what courses to offer hinge on input from business committees (each committee representing a specific branch of industry), and businessmen are often at the helm of the schools.

Some schools require that teachers keep track of where their former students are working. If they do not find a job, it is viewed as the teacher's fault. And if the placement rate does not reach a preset minimum level (e.g., 75 percent), the problem is investigated.

Courses can be quite sophisticated, such as a pilot plant for manufacturing semiconductors; the same school, however, could offer courses in shoemaking or leatherworking. If there is a market, there is a course for it. The corollary is even truer: if there is no market, then there are no courses. Since students always have to make some sort of payment (usually one third the total cost), enrollment is a good market indicator. It is no secret that students are more interested in the market when they have to pay, even if only part of, the cost of their education.

In summary, if you want to see innovation in pedagogical methodologies, don't waste your time going to the large universities: community colleges are the place to go.

4. Contract Training

In conjunction with the vocational training courses offered directly to students, community colleges increasingly are entering into agreements with companies to train their future (and present) employees. Ninety-five percent of community colleges have such arrangements with companies or the government. A full one fifth of all community- college students are studying under contract with an external organization.

"We are affordable. We can design programs quickly. We can do it faster for less money and we still have quality."[19] In a way, they've become huge capitalist enterprises that sell courses (in this sense, they are not much different from the best Latin American technical schools and universities). Obviously these contracts help to bring them closer to the companies and place them in a privileged position for understanding their needs. On a recent visit to a community college, it was possible to see, from the doorway of the auto mechanics class, a building that had been put up by Nissan, another by Ford, another by Toyota, and another by General Motors. Each building houses a school that trains technical and management staff for that company's dealerships. In the Ford building, students take apart Ford cars, study Ford manuals, use tools selected by Ford, and follow syllabuses prepared by Ford. The same happens in each of the other buildings. The company decides on the course content, class times, and materials. Some even have paper shredders in the classroom, for instructors to destroy the manuals after class and thus ensure confidentiality.

The trend among major U.S. companies today is to close their training centers and outsource everything to community colleges. Joining the automobile manufacturers, Caterpillar and Boeing are already moving in this direction.

5. Adult Education

On a recent visit to an avionics maintenance shop, visitors saw that the room next door was occupied by elderly men and women upholstering chairs, others were weaving baskets, and still others were learning embroidery.

Given the community-based nature of financing and decision-making, community colleges play a very important role in offering courses to students of all ages. This is clearly a social function and is of inestimable value. It is not vocational training for a profession, but rather a hobby, occupying the time of retirees through veiled or open methods of occupational therapy. Considerable time and resources are devoted to this activity.

It is not uncommon for a community college to have 20 percent of the local population registered for courses in any given year. Course catalogues are prepared each semester, covering a wide variety of interests and duration, and are mailed out to the entire community.

VI. Is What's Good for the United States Good for Latin America?

The safest answer to this oft-asked question is that there is no single answer that applies to all situations. It all depends.

The first tenet of this paper is that community colleges hold out significant possibilities for education in Latin America and should thus be the subject of careful study on our part. The second point is that we are only able to tap into some of the features offered by community colleges, basically because it would be impossible to replicate them exactly in our countries. Our public sectors lack the necessary flexibility and dynamism to operate such a comprehensive and

[19] David Pierce, President of the American Association of Community Colleges, in Jim Naughton, op.cit.

flexible institution. And without public subsidies, our private sectors would be unable to do everything that community colleges (nearly all of which are run by the public sector) normally do.

1. Short-Duration Courses and Social Mobility

Community colleges are the ideal vehicle of social mobility for an emerging clientele. Many of the students are the first ones in their family to be attending an institution of higher learning. Courses are offered at times that are convenient for students and allow them to work full-time while studying. Monthly tuition payments are affordable. And lastly, the courses are offered close to the market and provide rapid preparation for immediate access to that market.

Frustration with the lack of responsiveness of universities to the development needs of societies is mounting in Latin America. Despite the surge in university enrollments in the past 20 years, higher education continues to be accessible only to the privileged segments of society. Moreover, Latin American universities have rarely seen their missions encompassing anything other than academic education, and when they have ventured in the field of short technical programs they have generally "academicized" it to a point that has turned it irrelevant for the immediate requirements of the workplace. By in large, universities have not done a good job of fostering partnerships with local communities or industry and businesses either.

On the other hand, as secondary education coverage increases in Latin America, but quality of schooling remains high for the few and rather poor for the many, the diversity in talent and preparation for post-secondary studies among high school graduates will only increase over time. Some will be willing and able to undertake traditional university programs, some will be unable to do so without further preparation or will prefer to enter the labor force a soon as possible with something more than a secondary school diploma.

This, then, is higher education's new clientele. It is the profile of the new social groups who are nearing the end of their secondary education and are looking towards higher education. The least that Latin American societies can do is offer these students a useful kind of postsecondary education. To continue offering more of the same would not only be extremely shortsighted, it would be wrong on equity grounds.

Latin America's extant post-secondary technical training institutions have only partially dealt with these needs. Links with industry and business for curriculum development and technical assistance provision are weak or absent, there is little flexibility in program design and delivery, no effort is made in providing a general education alongside technical skills, and there is no possibility of transferring credits earned to a university program.

Latin American higher education is woefully ill equipped to deal with students of diverse backgrounds and interests. What it offers is good quality university education for those who can afford it— both economically and intellectually— and bad quality university education for those that can't. Community colleges are ideally suited for the task of providing post-secondary education for a diverse population. Not only does the program mix contribute to a better match between study opportunities and student needs and capacities, but also the flexible approach to

pedagogy, their modest tuition levels, and their proximity to labor markets and partnerships with industry contribute to ensure pertinence.

The orientation to labor market demand characteristic of a community college serves two other worthwhile items in the agenda for higher education reform in Latin America: first, it acts as a quality control mechanism, reinforcing at the outcomes side what accreditation and similar regulatory mechanisms can achieve over the inputs and processes dimensions of education. Secondly, it prevents institutions from becoming solely or overly reliant on public funding, forcing them instead to attain a healthy structure of revenues in which private funding is an indispensable resource.

To be sure, postulating the need for community colleges in Latin America is a very delicate issue. Consider a typical accusation: The wealthy offspring of the privileged classes will be able to pursue a university education in traditional majors that will prepare them to take over the reins of economic, political, and intellectual power. Since the poor are only now coming to the doors of higher education, let's give them something simple and unpretentious to keep them content so they will not bring down the level of our elite, public universities.

This may seem like an exaggeration, but it essentially sums up the situation of all the countries that are out ahead of us in terms of education— and there are quite a few of them. Without belaboring the point, there would appear to be only two options from a practical standpoint: either provide differentiated education, with nuances that allow for varying student profiles (with the poorest students being directed towards education targeted specifically at students from poor backgrounds), or provide equal schooling for all, which would lead ultimately to a more hostile, dysfunctional system for students having less-than-optimal educational backgrounds. No other options have been found.

A dean of students at a U.S. community college left no doubt about it: "Most of us are cognizant that people are looking for a way to make a living, not necessarily becoming cultured. They want to get through their business and computer science courses and get out there and get a job. At least some of them think that studying liberal arts is a waste of time. There is some impatience with things like freshman composition. They don't think they are going to have to write anything."[20]

Many countries are grappling with serious equity issues, and their educational policies reflect these options. Even so, they do not offer identical higher education for all. They have realized that a family's sociocultural setting determines characteristics that even the most expensive of schools cannot counterbalance. By the time students reach postsecondary education, they already have different interests, priorities, and— most importantly— scholastic aptitude. The best that can be done in an imperfect world is to design schools that are better able to further develop each student's potential (here the meaning is not *genetic potential*, since the impact of the environment is already enormous by the time children reach school age).

In Latin America, debate on this topic has been monopolized by those who prefer the comfort of utopias to the discomfort of the real world. It is sheer hypocrisy or wishful thinking to imagine

[20] Cyrilla Vessey, ibid.

that Latin America could create a fairer system than the ones already created by nations with considerably more resources allocated to education and with a true commitment to equal opportunity that is infinitely stronger than ours. If those countries found it necessary to create a divided, differentiated system of higher education, how can we expect the to do otherwise in our hemisphere?
The position taken by the authors could be expressed in diplomatic, or politically correct, terms. The bottom line, however, is that it is better to have short courses of studies for poor students and a longer course for rich students, than to have a long course of studies for the rich and nothing at all that will suit the poor.

For this dual-level solution to be acceptable ethically, every effort needs to be made to ensure that all screening is based on scholastic aptitude rather than socioeconomic background. The rich should not have an entitlement to the more elite programs; the poor need to have the same rights of access, and must be admitted, when their academic profile so justifies. Elitism should be intellectual, not social.

2. The Poverty of Secondary Education for the Poor: Similarities with Latin America

In Europe, most countries have rigorous examinations at the end of the secondary-education cycle. Students who do not pass are channeled towards vocational training, technical courses, or apprenticeships, none of which allow for subsequent easy access to university-level education.

The United States— being the only wealthy country in the world whose high-school graduates are in some proportion functional illiterates— was forced to create a subsystem of higher education to compensate for the poor quality of education offered at the secondary level. Considering that many secondary-school graduates in Latin America as well have not truly mastered the official curriculum (and the reasons for this are varied), it would seem that community colleges are a better suited option for Latin America than Germany's *Fachhochschule* or France's *Instituts Universitaires de Technologie (IUT)*, especially since these schools are much more elitist than community colleges and have rigorous entry conditions.

The jump in secondary-school enrollment in several Latin American countries has created a growing supply of graduates at this level, with the resulting pressure on higher-education enrollment. The only possible outcome in such a situation would be a drop in the quality of education received by this emerging clientele. Even if the quality of the schools remained constant, the schools themselves will be receiving an ever larger number of students from lower socioeconomic strata who are less well equipped to perform well at conventional schools.

To think that we can continue to offer the same type of course to students who are progressively more differentiated is to show extreme insensitivity to the world that surrounds us. If we are to meet the needs of this emerging clientele, it wont be through the same traditional courses for economics, law, and management. Moreover, we would be swimming against the tide by doing so, considering what is happening in countries that are educationally more advanced than ours. We must provide an education that is more practical, more concrete, and closer to the labor market. We do not need to reinvent new solutions; the models are here for all to see, and the most immediately tappable model is the community college.

3. Pedagogical Innovation

Technological advances hold out vast potential for the education field in such areas as recent developments in cognitive psychology as well as computers, television, and other tools. In wealthy countries, these are just one more of the available luxuries, something that is adopted if for no other reason than because the technology exists. We, however, can and need to make more rational use of available technology. We need to harness technology precisely because we lack the high-quality human resources that would allow us to provide a good education for all. Technology broadens the scope of influence of excellent instructors and materials, much more so than would be possible through conventional formats. A class taught by an excellent teacher and recorded on video can be reproduced for thousands of students at negligible cost.

So, we must think of ways to use these new technologies in education, not as a luxury or as the culmination of a process of pedagogical enhancement, but rather as an emergency exit, as a way to replicate successful experiences quickly.

We have a good model for this right before us: the community college. While four-year schools tend to be very conservative in their teaching methods, some community colleges can be a major source of inspiration since the education they provide is low cost, innovative, and broad-based. They are not a pedagogical laboratory for the rich, with constructivist professors who are meticulously reinventing all the world's knowledge. They provide education for the masses.

4. The Market Imperative

Fewer and fewer Latin American graduates of four-year universities are finding work in their major fields. These schools prepare for a market that is open to all diploma-holding professionals, regardless of their actual area of specialty.[21] Master's and doctoral degrees are now the diplomas needed in order to get a job in a specific field. In the United States, though, two-year programs as well are leading to well-paid jobs in the respective fields. The top five programs by starting salary in 1997 in the US were dental hygiene ($31,750), manufacturing processes technology ($30,675), telecommunications/interactive information specialist ($29,268), and physical therapy assistant and registered nursing following closely behind.[22] This is because a much higher degree of specialization is called for in these courses, leaving little time for the acquisition of general knowledge. If the program does not prepare students for the respective job, it is of little use. There is less flexibility and less margin for error, but at the same time the payoffs are greater.

An overarching concern with the job market is one of the core features of these shorter vocational programs, and community colleges offer many lessons and experiences in the fine-tuning of course offerings to local job markets.

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[21] See "Higher Education in Latin America and the Caribbean: A Strategy Paper," EDU-101, IDB, 1998.

[22] American Association of Community Colleges, *Pocket Profile of Community Colleges* cit., p. 8

5. Titles and status

When talk turns to human capital and investments, there is a tendency to focus on the aspects of education that can have an impact on productivity and overlook what the sociologists tell us. Actually, the individual decision to continue one's studies is influenced very deeply by the symbolic value of a degree. A degree brings status, which is a perception of self-worth or a feeling of belonging to a higher stratum. It is not a question of agreeing or disagreeing, but rather acknowledging that higher education is much more than just rates of return on an investment.

That said, the name given to the degree is an important issue, maybe not for the right reasons but it *is* important and it affects individuals' behavior. Courses that are viewed as leading to less prestigious degrees fail to attract potential candidates. The British got it right when, with one fell swoop of the pen, they changed all their *polytechnics* into *university colleges*. Cost-free, simple, and painless. Schools everywhere soon followed suit, adding that magic word to their name: university.

So, the name to be given to these courses is an important matter and not one without consequences. There is no intrinsic value in any specific name: the distinction between *postsecondary, higher education and university* is all in people's minds. There is nothing inherent in any of these terms; use alone will define them. No amount of tweaking will create meaning where there is none.

What name should they be given? Technical schools? Technological institutes? Associate degrees (to use the term adopted in the United States)? Unfortunately, this is an issue of not negligible importance.

But it is not, as many people in Latin America believe, the definitive factor upon which hinges the failure or success of the community college model. In countries where, as in Chile and Argentina, there is a large sector of institutions devoted solely to two-year programs, enrollments on such institutions are a significant proportion (around 40 percent) of the overall higher education enrollment. These students must have had to overcome the prestige issue, at least in the measure necessary to tolerate the "ignominy" for a greater good.

Second, a large part of the target clientele of a community college is in the US, as it would be in Latin America, a captive audience, in that it cannot for several reasons put itself into the university system.

Third, for those who definitely want to continue through the completion of a four-year undergraduate degree, a functioning transfer system would solve the reputation problem, insofar as they would see themselves as taking in the community college the first step of what would ultimately be a university program.

Lastly, nothing attracts customers as good quality: it is possible that this reticence to enroll in short programs is due to the entirely accurate perception that existing programs have little to offer by way of marketable skills. In this scenario students are not evading vocational and technical schools for considerations of status, but because they are rational consumers. They

understand that while the chances opened by a university degree are a function more of having the degree than of what one has learned in the process of getting it, the opposite is true with technical diplomas. Therefore an investment on a degree without skills, as justifiable it might be in the case of a university degree, is an entirely useless outcome of a technical program.

The problem of the feasibility of community colleges in Latin America seems to be an issue of supply, not demand. Persuasion needs to be leveled towards potential suppliers, rather than potential customers. A relatively recent development in Argentina worth following is the *colegio universitario*. Argentina has 1,800 non-university postsecondary institutions, called *terciarios*, the majority of which are public, which were allowed in 1995 to partner with a university to offer transfer programs to their students. A *terciario* with a transfer agreement with a university— which entails a supervisory relationship, called accreditation— can call itselfuniversity college. To date some 300 *terciarios* have transformed into university colleges.[23]

6. Bridges to Four-Year Programs

In the United States, early two-year programs were designed as a bridge that provided a link to traditional four-year programs. Although this preparatory function has gradually fallen by the wayside, the bridge continues to exist, i.e., the possibility of transferring to a four-year program upon completion of the two years of study at a community college. Furthermore, some public universities have established branch campuses within the campus of a community college, making it possible for a transfer student to continue with his college junior and senior year in the same location where he obtained his associates'degree.

The first operational engineering courses offered in Brazil were created according to the philosophy that they should provide some sort of bridge to regular engineering. To be sure, our perception that they failed is due precisely to the distorted logic that was applied, whereby the curriculum was tailored to the requirements of the bridge or transfer function. [24] In order for these technicians' curriculum to be equivalent to the first two years of engineering education the program was bogged down with theory courses, leaving no time for practical training. Graduates would lack any meaningful practical training. They would not have the necessary practical background that would enable them to find a job. Furthermore, they would also be lacking in math and physics compared to regular engineering schools. It ended up being a minicourse in engineering, one in which both theory and practical training were sacrificed. If applied and technical training is shortchanged in an attempt to make the student 'university-ready," a serious mistake is made, because what gets lost is the courses' practical-training component. Such courses need to remain geared towards the labor market.

The possibility of transfer did not materialize in the U.S. or Canada overnight. It had to be, and to some extent continues to be fought for every program and with every university, which often entails negotiation of curricula. Removing obstacles to transfer is the job description of transfer offices in community colleges throughout the U.S. and Canada. There is, however, significant

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[23] See Alberto C. Taquini (hijo), *La transformación de la educación superior argentina: De las nuevas universidades a los colegios universitarios*, Academia Nacional de Educación, Buenos Aires, 2000.

[24] See Cláudio M. Castro and Fernando Spagnolo, "Carreiras superiores curtas na área tecnológica: erros e acertos da experiência brasileira"(mimeograph).

progress in this matter in some US states, where four and two year colleges share the same code for transferable courses. Transfer in North America is not restricted to those who obtained an associate degree in general education or humanities. Technical alumni can transfer as well, but because of the applied nature of their instruction, they cannot accomplish it right away and need to take extra classes, called "bridges" in Canada, through which they acquire the academics of the next level of education. This is why vocational and technical programs are not 'terminal."

The traditional lack of general education in university programs in Latin America, the early professionalization of curricula in other words, poses a major obstacle to transfer. Two years of liberal arts or vocational courses will simply not coincide with the first two years of law, psychology, engineering or veterinary medicine. Yet, as a result of the academic shortcomings of high school graduates entering the university in some countries, the first year curricula of four or five year programs is increasingly becoming de-professionalized, i.e., is losing its program-specific orientation to a general education emphasis. If this trend continues, the problem of transferability would be partly solved.

Summing up, while the Canadian bridges notion could be deployed in Latin America to allow for the possibility of transfer from a technical program to a university one, thus avoiding the blunting of the technical edge of the program in the attempt of making it transferable, and although conciliation efforts were made to articulate a liberal arts two years' general education curriculum into a traditional professional Latin American university program, the fact remains that transfer is the most elusive aspect of the model when we think of its chances of taking root in Latin America. Ultimately the problem lies with the highly structured and vocational nature of university programs. And given the asymmetry of power, four year programs are unlikely to change in order to accommodate the needs of the students for short programs.

7. Certification and Accreditation: The Intricacies of Latin America

The United States has a long tradition with certifying students or officially accrediting courses, the exceptions being those fields that pose risks or security issues for service users; these are usually governed by federal systems for individual certification, e.g., the health professions, airplane pilots and mechanics, truck drivers. Some voluntary certification systems also exist, e.g., for automobile mechanics. Fields in which labor unions have a strong presence (e.g., the construction industry) also have such systems, which are often linked up to apprenticeship schemes. Most professions, though, lack anything comparable to the European tradition of certifying virtually all occupations. In fact, very few higher education occupations in the United States are governed by legislation or agreements.

Course accreditation, on the other hand, presents a very different motley picture, although the details of each system are defined by the individual states and not all states have such systems. At the level of higher education, there are also some voluntary systems of accreditation by professional associations (attorneys, accountants, etc.).

That notwithstanding, for the professions in which community colleges provide training there is very little control in the form of certification or accreditation of the institution. That is why courses can be created and changed so freely, without any legal repercussions. This is an obvious

advantage, especially in new fields where technology is changing so quickly. Furthermore, it opens the field for experimentation and incremental changes in curricula, programs, and content.

The situation in Latin America is somewhat different although not all that much. The regulated professions are mainly the ones with four or five years of university preparation; the so-called technical professions have not yet been taken over by entry restrictions based on diploma. The construction industry is perhaps the one most fraught with professional certifications and regulations. The newer fields are still relatively unregulated.

Anyone who is interested in offering such courses essentially has one important decision to make: follow the official curriculum and accreditations, or leave all that aside and risk the test of the market?

On the side of officialdom is the comfort, peace of mind, and dubious benefit of being able to say that the course follows official guidelines. The other side of the coin is that these curricula are always outdated and, when all is said and done, one still has to pass the market test.

Schools will have to make their own decisions in this regard.

8. Whose Move Is It: The Private or Public Sector's?

Higher education in Latin America is in the midst of a serious crisis brought on by legislation that has created both distortions and limitations. Costs may be too high for what is actually achieved in many courses. Everywhere, the model in countries like Brazil, one of the least developed in higher education, needs to be flexible and able to adapt in a way that public-sector constraints do not allow. Also, public universities in some countries are voicing strong opposition on ideological grounds. Consequently, in most countries, the private sector has taken the lead in reshaping higher education. Given the public sector's lack of funds hesitation to spur innovation, change paradigms, and upset the status quo, the private sector has spearheaded recent initiatives in this direction.

The full-fledged community-college model cannot be implemented by the private sector, since this would require an unending source of funding in order to serve the core clientele which comes from disadvantaged socioeconomic backgrounds. The private sector, then, will only be able to implement some parts of this interesting model.

A critical point for private-sector responsibility in this area is that, in order to set up serious community colleges, a sizeable investment needs to be made in developing curricula, preparing teaching materials, writing textbooks, and training instructors. Without such investments, which were made by the public sector in the case of Europe and the United States, the effort becomes an exercise in improvisation, as occurred in Argentina and Chile. In these two countries, the bulk of responsibility for postsecondary education was transferred to the private sector, but the businessmen who took an interest in the area also took a shortsighted, tightfisted approach to it. The outcome was that most courses are improvised and are lacking in any kind of creativity or

quality. This is a dangerous precedent in that it mars the reputation of an area that has not yet had a chance to consolidate and has yet to affirm itself and establish its status.[25]

In conclusion, this is an area in which the public sector has an undeniable calling, but under current conditions it is highly unlikely that the public institutions will take a significantly more proactive approach. This leaves a vast market open for the private sector, which conceivably will be the fastest growing segment in the coming years.

It would be unrealistic, however, to expect the private sector to tackle this task equipped only with its own financing, especially since short-duration courses are normally offered by small-scale operators. As is the case with small businesses in general, public subsidies will be necessary in order to defray the start-up costs involved in creating quality courses with good materials and properly prepared instructors.

[25] See Cláudio de Moura Castro and Juan Carlos Navarro, "Will the invisible hand fix Latin American private education?," in *Private Prometheus*, op. cit.

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